SURGERY.

21. *Tracheotomy in Croup.*—The expediency of resorting to tracheotomy in some stages of croup, is a question of the highest importance, and one not yet settled with all the precision and clearness that could be desired. Every fact, therefore, that can throw any light upon the subject possesses peculiar interest. Under this conviction we transfer to our pages the following notice of a report made by M. Berard to the Academy of Medicine of Paris, on a case of tracheotomy performed with success by Maslhieurat-Legrand.

"A child aged twenty-three months, large, well formed, and previously healthy, was attacked with croup. M. Maslhieurat was consulted on the fourth day of the illness, up to which time no treatment had been adopted. The infant was then in an advanced stage of asphyxia, the countenance was altered, and presented bluish spots here and there, the lips were livid, the pulse intermittent, slow, and scarcely perceptible; respiration had almost entirely ceased. At long intervals there were fits of characteristic, croupy cough, followed by laborious, hissing respiratory efforts. The tonsils were covered with false membranes.

"M. Maslhieurat immediately performed bronchotomy; during the operation he tied two small arteries and some veins which bled profusely. The cricoid cartilage, and three rings of the trachea were divided with a probe-pointed bistoury introduced through a wound previously made in the thyroid membrane. The air immediately entered the lungs forcibly, and life seemed to return. The operator not being provided with a canula, drew aside each lip of the division of the cricoid cartilage with a bent pin; a string attached to the head of each pin, and tied behind the neck, kept the wound open.

"Some traces of false membrane were seen on the mucous membrane of the trachea. Dilute muriatic acid was applied to the fauces and larynx, four times in the day. The pins were removed in the evening, the traction which they exerted on the borders of the trachea causing the wound to remain sufficiently open.

"The infant amended rapidly. The wound was healed on the twenty-first day, at which period respiration was free and the voice natural.

"M. Maslhieurat performed this operation in a second and still more unfavourable case. Death seemed so imminent, that scarcely a drop of blood flowed from the incision, and the infant did not present the least sign of life when the trachea was opened. The operator compressed the lower part of the thorax alternately, while the lips of the wound were held open; this manœuvre was continued during twenty minutes, and all hope was failing, when it was found that slight pulsation of the heart was perceptible. The efforts were then redoubled, and a first inspiration followed by others more frequent and profound, showed that life was not extinct. The lips of the wound were now kept open in the same way as in the former case. In half an hour respiration was re-established, and the infant expelled, during a violent access of coughing, a false membrane, tubular and bifurcated at one extremity, which M. Maslhieurat has presented to the academy. Other false membranes were expelled during the night. The state of the patient seemed satisfactory, when unfortunately, while he was being moved, the apparatus was displaced, and death from suffocation occurred on the instant.

"1. From these and many similar cases M. Maslhieurat concludes that bronchotomy is a valuable resource in certain cases of croup; especially when the false membranes have not yet extended into the bronchial tubes. This opinion we consider to be correct. We by no means maintain that patients, when operated on under these favourable circumstances, are always sound, for despite the operation the malady may continue to descend, as too often occurs, to the minutest bronchial ramification. The presence of these false membranes is not, however, invariably fatal, as there are cases where tubular false membranes presenting several bifurcations, have been expelled through the wound in the trachea, and the patient has recovered. We cannot, then, found the indication of the operation on this circumstance, the more especially as the symptoms do not always allow us to form an opinion as to how far the false membranes have extended.

"What motives, then, should induce the surgeon to operate in a case of croup? Before answering this question we must remark that this disease may cause death in two ways:—First, by causing a gradually augmenting narrowing of the glottis, whence results asphyxia, as a consequence of the mechanical obstacle to the introduction of air; secondly, by the extension of the disease to the bronchiæ and lungs. Obviously the first of these causes of death is at once obviated by tracheotomy, an operation which, consequently, is indicated whenever the patient is menaced with asphyxia. The second of these lesions, however, cannot be relieved by the operation.

"But if the operation is powerless in relieving this evil, is it capable of obviating it? Can tracheotomy, practised at an early period of the disease, by allowing the introduction of medicamentary applications into the interior of the trachea, arrest the progress of the disease, and prevent its descent to the bronchial tubes? M. Bretonneau first had the boldness to entertain an idea of this kind, and introduced a solution of nitrate of silver into the air passages. We must say, however, that it is more than doubtful that such a practice could prove advantageous, and consequently consider that the operation of tracheotomy should be exclusively reserved for those cases in which asphyxia is imminent in consequence of diminution in the capacity of the glottis.

"2. The second case, communicated by Maslhieurat, shows that bronchotomy may be attempted even when life seems to be almost extinct. When the operation was completed, the infant seemed dead, and was resuscitated, after keeping up artificial respiration during upwards of twenty minutes. A still more extraordinary fact has been recorded by M. Trousseau, in the *Journal des Connaissances Medico-Chirurgicales* (Oct. 1840):—The patient apparently had breathed his last a few moments previous to the commencement of the operation. Tracheotomy, however, was performed apparently, as it were, on the dead subject, and artificial respiration was kept up by means of alternate compressions of the thorax. After the lapse of a quarter of an hour, the heart was felt to pulsate, and at the expiration of 57 minutes the features moved, and a deep inspiration was made. Respiration was gradually re-established, and the patient was restored to life.

3. "M. Maslhieurat, in his first operation, carefully tied some small arteries and veins, which yielded blood profusely, apprehending, he says, the entrance of blood into the trachea. In so doing he conformed to the precepts laid down by almost every author who has written on the subject, it being a nearly general precept to open the trachea when the wound is bloodless. Daily experience tends, however, to show that this precept is unnecessary, and, furthermore, impossible to be observed. The entrance of blood into the trachea is a circumstance which need not be feared. Any one that has witnessed the performance of tracheotomy must have been struck with the violence with which every substance contained in the trachea and bronchia are expelled through the wound at each expiration, and with what facility the air, on the contrary, enters the lungs when the lips of the wound are kept asunder. Excepting, therefore, the case where an artery capable of furnishing an abundant hemorrhage, is wounded (and no artery sufficiently large to do so exists in front of the trachea), why should the operator stop to tie an artery, and more especially a vein? particularly when we know that the surest mode of arresting venous hemorrhage is to open the trachea largely, so as to render respiration free. Within these few months I have performed tracheotomy six times—on four children, and on two adults. In each case the proceeding was prompt and easy. A few incisions laid the trachea bare, and without tying any vessel, without waiting for the cessation of hemorrhage, the trachea was punctured at the inferior angle of the wound with a sharp-pointed bistoury, and the rings of the trachea and the cri-

coid cartilage immediately divided, by directing the same instrument upwards. We preferred incising the trachea with the same instrument with which it was punctured, as we regard the danger of wounding the posterior wall of the trachea as merely imaginary; and there is often the greatest difficulty in introducing a blunt-pointed bistoury into the small puncture made in the trachea by the sharp-pointed instrument.

"4. M. Maslhieurat having been compelled by necessity to keep the lips of the wound open by means of two bent pins, raises the question, whether an instrument consisting of two hooks, kept on the stretch by means of a spring, would not be preferable to a canula, and has presented to the Academy an instrument constructed on this principle. The suggested advantages of the instrument are—1st. That it is less likely to become obstructed than the canula; the accumulation of mucus being so rapid that the canula has often to be changed several times daily. 2dly. The wound being kept open by means of a simple hoop, which occupies much less space than the canula, a large quantity of air (the extent of the wound being equal) is admitted. 3dly. The proposed instrument can in no way impede the progress of the air into the larynx, while the canula allows little or no air to find access to that organ, a circumstance which, according to M. Maslhieurat, impedes the restoration of the mucous membrane of the larynx to its natural condition, and favours the persistence of aphônia, which is sometimes so obstinate. 4thly. There is, perhaps, somewhat less risk of pneumonia from employing the proposed instrument, which comes in contact with the mucous membrane of the trachea.

"The three first of these alleged advantages seem of little importance. If the canula becomes obstructed, it is easily cleaned and replaced. If the calibre of the canula is proportional to the aperture of the glottis, respiration is perfectly free; and if an opening be made on its convexity, the air finds free access to the larynx. As to the greater irritation caused by the greater bulk and length of the canula—there is unquestionably a danger to be more apprehended in theory from the canula than from the proposed instrument; but daily experience shows the harmlessness of the former instrument.

"M. Blandin did not quite agree in the observations respecting the new instrument proposed by Maslhieurat. He considered it as an excellent resource when a canula was not at hand. He also considered that M. Berard inculcated a rather dangerous practice in maintaining that it was not necessary to tie the vessels, as in some even a fatal hemorrhage had occurred. He quite agreed with M. Berard as to the celerity with which the incisions should be practised; but too much importance should not be attached to this point; in some cases, where the operation had been performed with the greatest rapidity, the patients had yet died of hemorrhage.

"M. Berard said he had only objected to substituting M. Maslhieurat's instrument for the canula. That he was well aware of the danger of hemorrhage, and that undoubtedly whenever a vessel bled freely, it should be secured before the trachea was opened: such cases were, however, rare; he only objected to the practice of tying or twisting every vessel according as it was divided: to the precept, in fact, of not opening the trachea till the wound was dry.

"M. Blandin replied that any vessel might cause a dangerous hemorrhage, and notwithstanding what M. Berard alleged it was better to arrest the flow of blood previous to opening the trachea. He considered the instrument proposed by M. Maslhieurat as a decided improvement. It was well known that canulæ were not always well made; that their introduction was sometimes difficult, and that their employment required conditions not always easily fulfilled."—*Dublin Medical Press*, Dec. 29, 1841.

M. Petel, of Cateau, relates in the *Journal des Connaissances Medico-Chirurgicales*, Oct. 1841, six cases of croup, in which he performed the operation of tracheotomy. In three of these the patients recovered, though five days had elapsed in one instance, and ten in another from the commencement of the disease, and both patients were almost in *articulo mortis*. In every case warm water was, several times, thrown into the trachea after the operation, always with the effect of facilitating the discharge of mucosities. In one of the cases followed by recovery, a solution of 20 centigrammes of nitrate of silver to 4 grammes of water (about gr. iij, to ʒj,) was dropped into the air-passages, in the other calomel was blown into the trachea. The solution of nitrate of silver was likewise employed in two of the cases which terminated fatally. The subject of the fifth observation had been suffering from croup for eight days when tracheotomy was performed; the patient's life was saved by it, the wound in the trachea healed, and she survived six weeks after the operation, when she died suddenly in the night.

In performing the operation, M. Petel considers it to be inexpedient to delay opening the trachea on account of hemorrhage, provided the patient seems in a state of impending suffocation. His reasons for this advice are, 1st, that the hemorrhage is usually venous, and ceases almost immediately on the trachea being opened, while in the patient's semi-asphyxiated condition the colour of the blood affords but little clue as to its origin. If the hemorrhage be arterial, the vessel is usually of such small size that the bleeding can be checked by the application of nitrate of silver. And, 2d, blood, which enters the bronchi does not, as is commonly supposed, occasion any serious consequences, but is expectorated as readily as the mucus which collects in the air tubes, or the fluids which may be injected into them.

The editors of the *Journ. des Connaiss.*, in a note, state that of 109 children labouring under croup, upon whom tracheotomy has been performed by M. Trousseau, he has never found it necessary to have recourse to the ligature or torsion for a single vessel; the hemorrhage always ceased when the canula was introduced. We learn from the same source that M. T. has been successful in *twenty-seven* cases.

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22. MALGAIGNE *on Pseudo-Strangulation, or Simple Inflammation of Hernia.*—Strangulation is said to exist whenever a hernia cannot be reduced, and when pain, constipation, vomiting, and hiccup are present. Should these symptoms progress rapidly, the strangulation is called inflammatory; if slowly, the strangulation is said to be from obstruction (*par engoument*). In either case, an operation is judged indispensable, so soon as the symptoms have acquired a certain degree of intensity. Boyer says, that we should operate if the symptoms continue to increase; and, in old or weakly subjects, he advises us to operate within the first three or four days.

Here we may ask, did Boyer reflect on the true danger of the operation, when he laid down such rules? Assuredly he did; but, with Pott, he thought "that the operation for strangulated hernia presented, of itself, no danger." In order to determine how far this opinion was founded on fact, I have noted all the operations performed during a period of five years (1836-41) in all the Parisian hospitals, and I find that in 183 cases there occurred no less than 114 deaths. Again, in old people, (from 50 to 80,) on whom Boyer would have us operate so promptly, I find that 70 out of 97 died. Obstruction, Boyer informs us, is produced by a collection of hardened fæces in the hernial tumour, and this frequently occurs in old hernia. But, we may ask, is this latter a fact? For my own part, I may say, that I have examined more than 3000 cases of hernia, without observing the circumstance on which Boyer insists. At Bicêtre, I have examined two of the most voluminous herniæ on record, one tumour measured 10⅓ inches in height, and 22 inches in circumference; the other, 8 inches in height, by 23½ in circumference; but in neither was there any trace of fæcal matter. Besides, we can have hard or fæcal matter in the large intestine alone, and the presence of the latter in a hernial sac is not one-twentieth as frequent as that of the small intestine. Hence, in 95 out of 100 cases, this obstruction, such as it is described in books, is materially impossible; it can only occûr when the hernia is formed by the large intestine. As regards the latter case, I can affirm that I have never seen such accumulation of fæcal matter in any autopsy that I have made; and, having consulted authors, I find but a single example in which this collection had really taken place.

The cause, then, of this species of strangulation is imaginary; so, I regret to say, are the symptoms which we find detailed in surgical writings. I have myself been misled by the doctrines laid down. I once operated on a case of supposed strangulated hernia from obstruction; there was no obstruction, no strangulation, and my patient died. Similar errors of this kind have been committed by Pott, Dupuytren, and Sir A. Cooper; and were all the cases published, we should have a long list of them. But is there any way of avoiding such errors? It seems to me, that some few rules of a simple nature may be established.

1. There is simple, non-inflammatory strangulation, which produces gangrene in a few hours.
2. We have simple inflammation, which is of frequent occurrence, and generally limited to the serous lining of the hernia.
3. Finally, inflammation of the whole mass of the tumour; this latter circumstance, however, is generally a consequence of one of the former conditions, and may be excited by the stricture, or by frequent attempts to effect reduction.

Obstruction of the intestine is a mere creation of the fancy; it is inflammation of the serous lining of the hernial tumour which has been mistaken for it. This peritonitis is one of the most frequent complications of hernia, and surgeons have probably overlooked it from not having sufficiently studied hernial tumours in their simple state. It may exist under the forms of adhesive or suppurative inflammation; the adhesive is often slight, and indicated by passing colic, or even by symptoms of indigestion, which sometimes go so far as vomiting and hiccup; the tumour is now irreducible, and the taxis will only aggravate all the symptoms; but rest in the horizontal position, and cold topical applications, will often suffice to effect reduction; in more severe cases, it may require several days or weeks before the inflammation is sufficiently reduced to allow of the return of the intestine. When hernial tumours, in this state, are reduced, nothing generally remains, except some thickening and irregularity of surface at the lower part of the sac; should the tumour not be reduced, then adhesions take place.

The suppurative inflammation is infinitely more rare, and can scarcely be discovered, except after operation or death of the patient. How are we to distinguish this inflammation of the peritoneal membrane from true strangulation, and what should our practice be? The following are the results of my experience on these points.

1. In no case of old and voluminous hernia, where bandages have not been employed, or have been left off for a considerable time. do we find real strangulation; the openings are much larger than the neck of the hernial tumour, and strangulation cannot occur. This is the result of all my observations on the living and dead body.
2. In cases of simple epiplocele, inflammation of the peritoneal membrane is what is commonly taken for strangulation; I say *commonly*, for I would not deny that strangulation may occur; I have never seen a case, nor have I found an authentic one in surgical works.
3. Hence, in the two cases just mentioned, the operation is contra-indicated; the taxis may be tried at the origin or decline of the inflammation, and the treatment should be purely antiphlogistic.—*Prov. Med. and Surg. Journ.* October 2, 1841.

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23. *Case of Inflamed Hernia.*—Prof. Williams exhibited to the Surgical Society of Ireland (Nov. 27, 1841) a very interesting pathological specimen, taken from a patient, who had died a short time before in the city of Dublin Hospital, 76 hours after having been operated on for strangulated inguinal hernia. The individual in question, about 60 years of age, had laboured under inguinal hernia of the right side for a period of six or seven years. He gave an unsatisfactory account of the antecedents of the case, but distinctly stated, that for the last four or five years he had worn a truss, which, however, retained the hernia very imperfectly, and that he frequently experienced much inconvenience from the

hernia descending under, and being compressed by the pad of the truss. On admission to the hospital, he laboured under mild symptoms of strangulated hernia, presenting very little indeed of urgency. Being a person of very limited intelligence, it could only be collected in addition to what has been already stated, that he had been five or six days without having had a fæcal evacuation, during which time the hernia, previously reducible, could not be returned; he had kept his bed three or four days, and had vomited four or five times at long intervals. The hernial tumour was about half the size of the shut hand, it was by no means tense; and, when handled, the patient complained of uneasiness rather than of pain, and that to but a slight degree; there was very little abdominal tenderness on pressure, and the patient was able to lie on his back with the lower extremities stretched out at full length. The pulse was about 90, and rather small; tongue furred and moist; there was a good deal of thirst; and drink, which was only allowed to be taken in small quantities at a time, did not excite vomiting. The hernia could not be reduced, though, on attempting to do so, a considerable quantity of flatus was obviously expelled from the protruded bowel, and the tumour became more flaccid, and apparently slightly diminished in bulk, circumstances which, coupled with the (almost) absence of pain on pressure, caused the taxis to be persevered in longer than would otherwise have been done. Under these circumstances, small doses of sulphate of magnesia were administered by the mouth, and an enema directed to be thrown up every fourth hour. Two or three small fæcal evacuations occurred during the night, and, in the morning, matters were little altered, except that the patient stated, that he found himself, on the whole, more comfortable. Shortly after the visit, however, he began to vomit whenever he drank, and the tumour became painful, tense, and decidedly tender on pressure. Dr. O'Beirne's tube was now passed up the rectum, but as it failed to give relief, and the symptoms were rapidly growing worse, the operation for strangulated hernia was performed by Mr. Williams, in the evening.

On opening the hernial sac, which contained no fluid, and which was not adherent to the bowel at any part, the finger could be passed all around the neck of the sac, and through the inguinal canal fairly into the abdomen. The inguinal canal was very short, and its obliquity had quite disappeared, as often occurs in old herniæ, according to a mechanism too well known to need description. There was, in fact, no stricture to free, no pressure or constriction was exerted by the rings, the inguinal canal, on the sac, or any portion of the intestine. Even now, however, the protruded bowel could not be returned until pressure was exerted on it for, perhaps, a couple of minutes; the obstacle to its return consisting in the condition of the intestine itself, its surface being covered with a thick layer of coagulable lymph, which rendered it rigid and unyielding, it was deemed essential, however, to return the bowel, as it gave the sensation to the touch, (which subsequently proved erroneous,) of containing some indurated mass, supposed to be fæces, in its cavity; shortly after the operation, the bowels were freely moved. The symptoms of peritoneal inflammation, however, continued despite the treatment, which chiefly consisted in the internal and external exhibition of mercury, and the patient died seventy-six hours after the performance of the operation.

On dissection, the coats of the portion of the intestine which had been protruded (the ileum about twelve inches from its termination) were found to be enormously thickened—in some parts fully to the extent of a quarter of an inch. The proper tissues of the bowel were not hypertrophied; the thickening depended on the effusion of coagulable lymph, partly situated on the serous surface of the intestine, partly in the subserous cellular tissue. In consequence of this condition of things, the calibre of the intestine was diminished to less than a fourth of its natural capacity; and it was the deceptive sensation thereby communicated to the touch which had led to the belief that indurated fæces were impacted in the bowels. The serous coat of the intestine was inflamed, and covered at points with gelatinous lymph; but, as manifestly appeared from the inspection of the preparation, the intensity of the inflammation diminished as the distance increased from the portion of intestine that had constituted the hernia. The inflammation had evidently commenced at that point, the morbid alterations being there at their maximum, and had thence extended, becoming less intense as it spread. The parietal layer of the peritoneum was not inflamed. A portion of the abdominal parietes and scrotum, comprising the entire of the sac and of the inguinal canal, had been removed, and were exhibited, whence it clearly appeared that no stricture or compression could have been exerted on the intestine by any of these structures.

Professor Williams said that it might be collected from what he had stated, that he considered the operation had been in this case, to say the least, useless. He, nevertheless, gave the case publicity. This had clearly been a case of *inflamed* hernia, and not a case of *strangulated* hernia. But how was this difference to be diagnosed during life? He confessed he did not know. The diagnosis of this distinction, a most important one, had yet to be established. In this case, the point of departure of the inflammation was, beyond all dispute, the protruded portion of the intestine; the preparation placed that beyond doubt, and yet, till within a few hours of the operation, that portion of the intestine was, he might fairly say, almost indolent.—*Dublin Medical Press*, December 29, 1841.

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24. *Foreign body in the air passages for nine months—expulsion—cure.*—M. MASLHIEURAT-LAGEMARD communicated to the Academy of Medicine of Paris an interesting case of this character. The subject of it was a woman 58 years of age, vigorous constitution, who when first seen by M. M. had been labouring under a cough for four months. At the commencement of the attack the fits of coughing were violent and accompanied with a sense of suffocation. When she consulted M. M. "the cough recurred every eight or ten days, lasted for one or two minutes, and was unaccompanied with fever or expectoration. The patient could assign no cause for the attack, nor was any thing learned by auscultating the thorax. The symptoms continued without aggravation, or mitigation, and finally, the patient expectorated along with some mucus, a rough, yellowish calculus, about the size of a filbert nut. On sawing the calculus, it was found to consist of calcareous matter, encrusted on a cherry-stone. The patient then recollected that the first attack of cough occurred when she was eating cherries, but if she experienced any sensation of suffocation at the time, it was so slight as to have quite escaped her memory. She remained perfectly well after expulsion of the calculus."

In a case related in the *Ephem. Nat. Cur.* a cherry-stone remained in the air passages for a year, and was then expelled by coughing, encrusted by tartar.

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25. *Fracture of the neck of the femur within the capsule—osseous union.*—An example of this is related by WALTER JONES, Esq. in the sixth volume, N. S. of the *Medico-Chirurgical Transactions*. The subject of it was a man upwards of 80 years of age, who, after a fall in Oct. 1838, exhibited all the symptoms of fracture of the neck of the femur. He so far recovered as to be able to move about with a stick; the limb was shortened about an inch and a half, and the foot much everted.

The following remarks by Mr. Stanley are interesting:

"The history of the case is clearly that of fracture of the neck of the femur; the appearances of the bone show that there has been a fracture which has re-united by an osseous medium; and the direction of the fracture is such as, in my opinion, can permit no doubt that it was confined to the portion of the neck of the bone covered by synovial membrane; consequently, that it was wholly within the capsule. The fracture extends through the basis of the head of the bone in the line of its junction with the neck. As in other cases of the same kind, great part of the neck of the bone has disappeared, and, in consequence, the head is proportionately nearer to the trochanter major and shaft of the bone; its re-union has, in fact, taken place in part to the remaining portion of the neck, and in part to the shaft. This union is certainly osseous. In addition to the first maceration of the bone with its surrounding soft parts, it was subsequently immersed for several days in a strong solution of carbonate of potash, and one-half of the bone has been boiled in water for three hours without the slightest yielding perceptible in the line of the fracture.

"The specimen is preserved in the Museum of St. Bartholcmew's Hospital."

26. *Fracture of the Tibia, with avulsion of the Internal Malleolus, and penetrating Wound of the Ankle-joint; Consecutive Abscesses, Necrosis of the Tibia; and Resection of its inferior extremity—Recovery.* By M. Castella.—C. H. J. St. Croix, aged 42, was thrown down on the 22d May, 1840, under a baggage wagon. The right foot was turned forcibly outwards, the internal malleolus was torn from its attachment, and the inferior extremity of the tibia protruded through the skin to a considerable extent.

Considerable inflammation followed the injury, abscesses formed behind the tibia, and amputation being deemed necessary, the patient was conveyed to the hospital at Pourtales, on the 27th of May.

The right foot was found to be very much everted—the fibula was fractured three inches above the external malleolus, which was flattened and crepitated on pressure—and above which the fibula presented a reentrant obtuse angle. Internally the inferior extremity of the tibia, black and denuded, projected to the extent of two inches, and the internal malleolus was torn off at the level of the articular surface of the tibia. Several fistulous openings existed at the posterior border of the tibia, and yielded a fetid sanious discharge. The foot was œdematous; there was considerable fever, and the patient was very much debilitated.

June 2d—Before resorting to amputation, it was determined to resect a portion of the necrosed tibia, to replace the foot in its natural position, and to retain it in situ by means of Dupuytren's apparatus, for fracture of the fibula.

With this view, an incision was made anteriorly and posteriorly to the tibia, and a slip of lead passed round the external surface of the bone, as high up as possible, to protect the soft parts, and especially the vessels; the bone was then sawed across, and twenty-one lines of its inferior extremity removed.

The foot was now easily drawn inwards, and kept in position, with Dupuytren's bandage; the depression of the fibula disappeared; and the leg being semiflexed, was placed on its outer surface.

Phlegmonous inflammation followed the operation, requiring several incisions which gave issue to sloughy cellular tissue; but at length granulations covered the inferior extremity of the tibia; the medullary membrane became rapidly developed, and in proportion as the vacant space between the tibia, fibula, and astragalus became filled with granulations, the heel which had been drawn forcibly upwards by the action of the gastrocnemii and solei muscles resumed its situation, and the foot ceased to be extended on the leg.

At the expiration of two months the fibula was consolidated, and presented a symmetrical outline; and after a few months, the wound was completely consolidated. The foot had acquired some small degree of motion, and the space resulting from the resection of the tibia had disappeared, and was filled by a solid bony substance. In October the patient began to walk on crutches; and on the 11th October he left the hospital, being able to walk with the aid of a stick.—*Dublin Med. Press*, from *Gazette Médicale de Paris.*

[It will be observed, that this case has some points of resemblance to that of Wm. Smith, whose case is noticed in our preceding No. p. 181, and that the treatment was similar to that judiciously adopted in the latter, by Dr. Shipman, of Cortlandville, N. Y. Ed.]

27. *Successful Amputation of the Hip-joint.* By M. Textor.—A man was seized with gangrene of the leg, for which the limb was amputated through the knee-joint. The gangrene, however, seized the stump, and M. Textor was obliged to amputate the thigh at the hip-joint. The only unusual occurrence noticed during the time of the operation was, that the crural artery was plugged up with a fibrinous clot, notwithstanding which a ligature was passed around

it. No unfavourable symptom followed; and four months after the operation the man had so far recovered his health as to be able to walk about the court of the hospital.—*Ed. Med. and Surg. Journ.* from *Gaz. Med. de Paris*, 4th Sep. 1841.

28. *Two cases of Excision of the Callus in badly united Fractures.* By Prof. PORTAL.—A man 32 years of age, fell from a cart and fractured his tibia and fibula nearly in their middle. Inflammation, followed by purulent infiltration, attacked the limb, and as the patient was very restless, after the cure was effected, it was found that the fragments of the bone had united in an irregular angular manner. Professor Portal first tried to break the callus across, in order to reset the limb, but, not succeeding in this, he cut down on the irregular angular projection by a vertical incision, and uncovering the bones, passed a chain saw round them and removed about an inch of the bone. The wound united by the first intention; the limb was kept carefully extended, and in forty-eight days the patient was dismissed cured. The limb was shortened a very little.

The other case was that of a woman who had received a compound fracture of the upper third of the thigh bone. On account of the violence of the inflammation the limb was at first semiflexed; and when this had abated it was placed in the extended posture. After a period of twenty-eight days the bandage was removed, and it was found that the union had taken place irregularly, the broken ends forming an angle at their union. As it was found impossible to rupture the callus which had been thrown out, the ends of the bone were cut down on, a chain-saw passed first around the upper fragment and about an inch and a-half removed, and then around the lower, and half-an inch of it cut off. The limb was then maintained in a state of permanent extension. The wound suppurated and became covered with an eschar, but no other unfavourable symptoms followed; and fifty-five days after the operation she was dismissed cured, with the limb shortened to the extent of two finger-breadths, but perfectly serviceable. —*Ibid.* 18th Sept. 1841.

29. *Extirpation of a Submaxillary Gland.* By M. COLSON, of Noyon.—It has been questioned, especially by M. Velpeau, whether this operation was really ever performed, or whether the supposed diseased salivary gland was not in each case merely a diseased submaxillary absorbent gland. In the present case the evidence of its having been truly the submaxillary gland, which was removed, seems nearly complete. The patient was 65 years old, and had had for eleven years a cancer of the lower lip, which had been treated by a variety of caustics. At the time of the operation, this was as big as a large nut, and was ulcerated extensively; and there was besides, towards the right side of the base of the lower jaw and below it, a lobulated tumour, which was supposed to consist of enlarged absorbents. After removing the cancer of the lip, the author proceeded to this tumour, but was astonished to find that it was situated much more deeply than he had expected, and that, in the removal of it, it was necessary to divide the lingual branch of the fifth nerve, and the submental artery; and to expose the facial artery, the digastric, stylo-hyoid and mylo-hyoid muscles, and the hypoglossal nerve. The operation was with much difficulty accomplished, and the tumour when removed was found to consist of the submaxillary gland (which was recognized by its being still inclosed in its fibrous capsule) and of a few enlarged, but not otherwise diseased, absorbents. The gland was converted throughout into encephaloid tissue, which was in parts softened and nearly fluid; it measured an inch and a half in one direction and about an inch in the other. The patient rapidly recovered from the operation, and eight months after remained perfectly well.—*Brit. and For. Med. Review*, from *Annales de la Chirurgie*, Aug. 1841.

30. *Treatment of Old Fractures by Division of Tendons.*—Prof. DIEFFENBACH has several times, in old cases of fracture of the patella or the olecranon, where the portions were dragged far apart, divided the adjacent tendons so as to be able

to bring the portions together, and, by friction of them one upon the other, to excite such action as might end in the formation of a shorter and firmer bond of union. In some cases, considerable benefit was obtained after all other means had failed; in others, the result was negative. Two examples are detailed; in one, an old ununited fracture of the ulna, he divided the tendon of the triceps, fixed the upper portion of the bone in its right place by a bandage, and every fourteen days rubbed it well against the lower one: in three months the union was firm. In another example, an old, distantly united fracture of the patella, he divided the ligamentum patellæ and the rectus femoris about three inches above the patella: then, by an appropriate bandage, and constantly drawing the separated portions more closely together, he obtained, at the end of some months, a complete hardening of the interposed substance, and a considerable amelioration of the patient's state.—*Ibid.* from *Casper's Wochenschrift*, Oct. 2, 1841.

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31. *Secondary hemorrhage after amputations—comparative advantages of circular and flap amputations.*—In a discussion in the Royal Medico-Chirurgical Society, May 11, 1841, "Mr. Rutherford Alcock said that the question of amputations generally, and of the different modes of performing them, and of the effects of different circumstances upon the results of the cases, had engaged much of his attention for several years. Many of the results which he had attained were already before the public, and he would now limit himself to observations on the principal topics of the present paper, and especially to the question of the comparative advantages of the flap and circular modes of operation, and the results of each with reference to the ultimate terminations of the cases, and the several accidents that supervene on amputations. With respect to the occurrence of secondary hemorrhage, he quite agreed with Mr. Liston that the oblique division of the femoral artery was not a matter of importance. But he was not sure that the oblique division of the smaller arteries had not some influence in bringing on or permitting that accident. He had often thought that, in flap amputations, the small vessels retracted only partially, which, in circular amputations, would have retracted completely; or that the vessels in the former case were overlooked, which, in the latter, bleeding distinctly, would have been secured. Nothing, however, had convinced him more of the necessity of having accurate records of series of cases, and of not trusting to general impressions, than the results of amputations. In these questions, more than in any others, general impressions were apt to be erroneous, from the circumstance of the strength of the impression which single events, deemed at the time remarkable or important, make upon the mind. With respect to this very question of secondary hemorrhage, for instance, he had himself gained a very wrong impression from two cases, which was not corrected till he had accurately ascertained the results of the whole series of those that had fallen under his observation. The two cases were these:—In an epidemic from which the troops under his charge suffered at Vittoria, the legs in several cases became gangrenous, and required amputation. In the first two instances he amputated in each patient one leg by the flap, and the other by the circular operation; and in both these cases the flap operation was followed by secondary hemorrhage; but after the circular none supervened. The circumstance made such an impression on him that he entertained no doubt that flap amputations were more obnoxious to secondary hemorrhage than circular, till he came to sum up the results of all his cases, or, at least, of all those of which he had a regular and well-kept series. The result of this examination was, that in 115 cases, of which 90 were circular amputations, and 25 flap amputations, the proportion of secondary hemorrhages was somewhat greater in the former than in the latter. In the second place, with regard to the liability to necrosis of the sawn bone in the two classes of cases, he did not think that any difference could be found between them: and it was the same with regard to the conical form of the stump, an event which he believed could only very rarely occur after either kind of amputation, if dexterously performed by a surgeon practised in the operation. As in the 115 cases alluded to it had occurred only twice, he could not draw any conclusion respecting its frequency in one or the other operation.

With reference to the main question of the comparative mortalities of each mode of operation, he has found that his results were by a fraction disadvantageous to the flap amputations. He was not, therefore, prepared to agree in what was said to be the growing opinion that this operation would in time completely supersede the other. It was true that the flap amputation was a more rapid mode of operating than the circular, and to this full weight must be allowed; for pain is in itself an absorbent of life, and is always followed by a reaction and a febrile disturbance, that may have an important influence on the recovery of the patient. At the same time he thought that the difference in this respect between the two modes of operation had been overrated. Eighty or ninety seconds were ordinarily sufficient for the performance of the circular operation; and if the flap amputation were done in fifty or sixty, the difference of the times during which the patient was in each exposed to pain was really not so great that much importance could be attributed to it. It did not appear to him, therefore, that on this ground there could be any just reason for discarding the circular mode of operation. A more important point seemed to him to be involved in the question of the after treatment of the stump. There was nothing of which he was more certain than that the idea of the advantages of union by the first intention, which was so commonly held in this country, was greatly exaggerated, and he would go so far as to say that, in some cases, such a union was not only of no advantage, but was actually mischievous, and dangerous to the life of the patient. For patients, after immediate union of the wound, would often, as he had himself seen, die of the very diseases which were said to result from the wound remaining open. In a primary amputation, after an accident in a healthy man, it was no doubt most natural to desire that the wound should be healed as quickly as possible; and, probably, in these cases, it was best to try to obtain a union by the first intention. But in secondary amputations, and in those performed for diseases of the limbs, when the incisions were made through diseased tissues, there was no use whatever, but, he believed, a disadvantage, in bringing them together. They would almost invariably open again, and place themselves in the position in which they had better have been left from the first. This was especially the case when limbs were amputated for diseases which had been connected with a considerable discharge. In all these it was dangerous to stop the discharge too suddenly, and it had been proposed to make an issue near the end of the stump, to keep up an artificial drain to replace that which had been cut off. But this method, he thought, would be very inconvenient, and such indeed as could scarcely be put in practice; another, which he had sometimes adopted, and which seemed to fulfil all the intention, consisted in passing a skein of silk through the lower part of the wound, and thus maintaining, for a time, a constant irritation and a discharge of matter, which afterwards might be gradually reduced."—*London Med. Gaz.* May, 1841.

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32. *Dislocation of the Tendon of the Long Head of the Biceps Humeri from its Groove.*—John Soden, Jr. Esq., has communicated to the Royal Med. Chirurg. Society, two cases of this accident. The first case is that of a man of advanced years, who injured his right shoulder by falling upon his elbow; in six months afterwards he sustained a second accident, a compound fracture of the skull, of which he died; and an opportunity was thereby afforded for examining the nature of the first injury. The symptoms of the injury of the shoulder were always obscure, on account of an alteration in the relative positions of the bones of the joint, which did not apparently depend on a fracture, and could not be considered to amount to a partial dislocation, to which, however, it appeared to be more closely allied than to any other known injury.

The joint was flattened at the posterior and outer parts, and the head of the humerus was unduly prominent in front, and closely drawn up in contact with the under surface of the acromion, grating against it on motion, and becoming locked with it by the upper edge of the greater tubercle striking against that of the acromion on abduction of the arm.

The underhand motions were not much interfered with, except that the patient had no power to raise any object from the ground, on account of the severe pain induced by exercise of the biceps muscle. On examining the joint the accident was found to be a dislocation of the tendon of the biceps from its groove, unaccompanied by any other injury. The joint exhibited extensive traces of general inflammation, and the capsule was thickened and contracted.

The author infers that the altered position of the bones was dependent on the displacement of the tendon, and he explains its influence in the following manner:—

The head of the humerus being placed on an almost flat surface, and not inclosed in a bony cavity, is subject to the control of the capsular muscles, which invest it on three sides. These muscles may be said to arise from the upper three-fourths of the circumference of a circle, to the centre of which, represented by the head of the humerus, they converge.

To enable the bone to maintain its equilibrium, it is necessary that the capsular muscles should exactly counterbalance each other; and as there is no muscle from the ribs to the humerus to antagonize the upper capsular muscles, it is suggested that this office is performed by the singular course of the long tendon of the biceps, which, by passing over the head of the bone, when the muscle is put in action, tends to throw the head downwards and backwards; it follows, therefore, that the tendon being removed, the head of the bone would rise upwards and forwards.

Allusion is then made to the frequency with which injury of the tendon is involved, in accidents to the shoulder-joint. A paper by Mr. Gregory Smith, in the 14th vol. of the Medical Gazette, on the "Pathological Appearances in Seven Cases of Injury of the Shoulder," is quoted to show, that in all those instances which were accidentally met with in the dissecting-room, and are consequently without histories attached, the tendon was either ruptured or displaced; and the same altered position of the bones, as in the present case, was noticed in some of them.

The subject of partial dislocation of the humerus is next considered with reference to the probability of an injury of this tendon being involved in the production of that accident. Only three dissections of partial dislocations are on record; they are to be found in a paper, by Mr. Hargrave, in the Edinburgh Medical and Surgical Journal. One fell under the observation of Mr. Hargrave himself, and the others he quotes from Sir Astley Cooper's large work, and from Dupuytren's Leçons Orales. In Mr. Hargrave's case, the tendon was ruptured; in Sir Astley Cooper's it had been, but had subsequently become reunited; and in Dupuytren's its condition is not mentioned.

The second case is one of a man, who, among other injuries, sustained a dislocation forwards of the humerus. Great difficulty was experienced in the reduction; and after death, for the man only lived a few days, the joint was examined: it was found that the tendon was dislocated, and that it had passed completely over the head of the bone on its inner side, and was lying at the back of the joint. The author attributes the difficulty of reduction to this complication, with the displacement of the bone.—*Lond. Med. Gaz.* July, 1841.

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33. *Permanent Contraction of the Fingers.* By Prof. VELPEAU.—Permanent flexion or contraction of the fingers depends on a great number of causes; it may arise from wounds, paralysis of the extensor muscles, anchylosis of the joints, tumours, shortening of the tendons, irregular cicatrices, &c. On the present occasion, however, I wish to direct your notice to that form which depends on contraction of the palmar fascia, or on the formation of fibrous bands extending from the palm of the hand to the fingers, and binding down the latter in their irregular position.

Before the remarks published in 1831, by Dupuytren, followed up by those of MM. Lemoine, Mandet, Vidal, Goyraud, &c. permanent contraction of the fingers had not been much noticed by surgeons. Boyer alludes to the affection under the name of *crispatura tendinum;* Sir Astley Cooper, also, speaks of permanent retraction of the fingers and toes, which he attributes to contraction of the sheaths of the tendons or of the palmar and plantar aponeuroses. Dupuytren has clearly shown that the tendons are seldom engaged in this affection, but he has not so evidently demonstrated that it depends on induration, or shortening of one or more bands of the palmar fascia.

The disease now under consideration, is characterized by the formation of certain bands or chords, which are elevated beneath the skin, and extend along a considerable portion of the palmar surface of the finger; these bands generally occupy the median line, and are attached usually to the first phalanx, but sometimes prolonged to the second or third. According to Dupuytren, this disease generally begins on the ring finger, and thence extends to the little finger; it increases gradually, without occasioning pain; the patient, at first, experiences a feeling of stiffness in the palm of the hand, and is unable to extend one or more fingers; the latter soon become contracted, and, in extreme cases, the tip of the finger rests on the palm of the hand. On examination, the first thing which we notice is a chord extending along the palm and finger: if you attempt to straighten the finger, this chord becomes more tense, and it disappears when you flex the finger completely; it is rounded off in shape, and forms a kind of bridge or prominence at the metacarpo-phalangeal joint. The skin is wrinkled into arched folds, extending from the middle of the palm of the hand to the base of the finger. The disease, thus progressing, may attain its maximum degree of severity without causing any pain, or appearance of anchylosis; the joints are easily flexed, but cannot be extended by the most powerful efforts; Dupuytren has seen 150 pounds weight suspended on the bent finger, without producing any effect on it.

This retraction of the fingers is a very disagreeable affection; it prevents the patient from seizing any large body, and, when he closes the fingers strongly, severe pain is felt. Persons labouring under permanent contraction of the fingers, are usually those who have made violent efforts with the palm of the hand, or been employed in occupations during which the palm and fingers are frequently pressed against hard bodies. Thus, it is met with amongst masons, ploughmen, watermen, coachmen, &c. Dupuytren mentions the case of a literary personage who was attacked in consequence of frequently using a round-handled office-seal for his letters.

What is the anatomical lesion which characterizes permanent contraction of the fingers? Upon this point there exists a variety of opinions. Some attribute it to thickening and contraction of the skin; others, to spasm of the muscles; disease of the flexor tendons; inflammation and contraction of the sheaths of the tendons; some change in the joints and their lateral ligaments; finally, contraction of the palmar fascia. This latter idea was chiefly supported by Dupuytren and Sir Astley Cooper; the following case was the one which influenced Dupuytren's opinion:—An old man, who had been affected for many years with retraction of the fingers, died in the Hôtel-Dieu; Dupuytren examined the parts with great care; on removing the skin from the palm of the hand, it was found that the folds of integument completely disappeared; the palmar fascia was contracted and shortened, and several bands passed from its lower part to the sides of the deformed finger. On endeavouring to extend the fingers, Dupuytren perceived that the fascia and these bands were rendered more tense; he divided the bands, and effected, at once, complete extension of the contracted fingers; the tendons and their sheaths had not been touched; the joints likewise and bones were completely free from any appearance of alteration. From this case, Dupuytren naturally concluded that the disease originated in abnormal tension of the palmar fascia, a tension depending on contraction excited by the pressure of some hard substance on the palm of the hand. The case certainly shows that contraction of the fingers may sometimes depend on a change in the palmar fascia, but it does not prove that this is always the cause. The bands or hard chords, which, as I have already mentioned to you, are seen projecting under the skin, extend to the palmar surface of the first phalanx, and sometimes to the second or third phalanx. Now we know that the palmar fascia terminates at the root of the finger, by becoming attached to the sheaths of the tendons and ligaments; besides, the fascia does not cover the ball of the thumb or extend to its root, yet we have permanent contraction of the thumb, with the subcutaneous chords already noticed. Having determined, by dissection, that the palmar fascia remained sometimes intact, after the removal of these chords, I announced, in 1833, that the prolongations mentioned by Dupuytren were not always formed by the palmar fascia; but that they seemed to me to depend on transformation of the subcutaneous cellular tissue into fibrous bands. M. Goyraud, surgeon to the Hôtel-Dieu of Aix, has proved the correctness of this opinion by his researches on permanent contraction of the finger, published in the third volume of the Memoirs of the Royal Academy of Medicine. In addition to a carefully performed dissection, M. Goyraud relates the following case, which confirms my view of the nature of this disease.

"M. Chaine, steward of the hospital, presents a remarkable example of the permanent contraction of the fingers. The three last fingers of the right hand are flexed; of the left, the four last fingers are in the same condition. The left ring-finger is more flexed than the others; on the right side, the little finger is the one most contracted; the middle fingers are only semi-flexed. The contraction came on gradually, and without any pain. M. Chaine is now 58 years of age; when at the age of 42, he first perceived that he was unable to extend the left ring-finger completely. The latter became gradually contracted, and the affection soon extended to the two neighbouring fingers. Shortly afterwards, the right little finger began to contract, and then the ring and middle fingers of the same hand. The first phalanges are now flexed at a right angle on the metacarpal bones, and the second phalanges at various angles on the first. On attempting to extend the fingers, it is evident that they are retained in the flexed position by a number of bands running from the palmar fascia to the middle part of the fingers."

In this case, the disease consists in flexion of the first phalanx on the metacarpal bone, and of the second phalanx on the first; the joints of the third phalanges are completely free.

Hence, since contraction of the palmar fascia and its digital prolongations could only influence the first phalanx, it is evident that the contraction of the second phalanx must depend on some other cause. Even in the lectures of Dupuytren, we may find a proof of this. M. L had contraction of the ring and little fingers of the left hand, which were completely flexed on the palm; the second phalanx was bent on the first, and the tip of the third applied to the ulnar edge of the palm; the little finger was constantly flexed on the palm of the hand also. M. Dupuytren operated in the following manner:—He commenced by making a transverse incision, ten lines in length, opposite the metacarpo-phalangeal joint of the ring-finger; the knife divided first the skin, and then the palmar fascia. The ring-finger was now reduced nearly to its natural position.

Being desirous of sparing the pain of a second incision, Dupuytren endeavoured to prolong the incision of the palmar fascia, towards the ulnar edge of the hand, but could not succeed; he was, therefore, compelled to make a second transverse incision opposite the articulation between the first and second phalanx of the little finger, and thus separated its point from the palm, but the remainder of the finger was still immovable. A third incision divided the skin and fascia, opposite the metacarpo-phalangeal joint of the little finger; the benefit was very slight, and he was forced to make an incision opposite the middle of the last phalanx, when the finger at once became straight. Is it not clear, from this case, that other parts besides the palmar fascia were engaged in the disease? Do not we all know that the prolongations of this fascia are attached to the sides and not to the middle of the first phalanx?

From the facts which have been just mentioned, M. Goyraud concludes that permanent contraction of the fingers never depends on the palmar fascia; that we should avoid dividing this latter in any operation for the relief of the disease, and that Dupuytren, probably, divided the subcutaneous bands developed in the cellular tissue, and not prolongations from the palmar aponeurosis.

This opinion seems to me to be too exclusive, and I agree with M. Sanson in thinking that permanent contraction of the fingers may depend on the palmar fascia, on the skin, or more frequently on transformation of the cellular tissue into fibrous bands.

The treatment of this affection is exclusively surgical; we can expect no benefit from any other means than division of the fibrous bands by which the finger is retained in the flexed position. Dupuytren made an assistant extend the fingers as far as possible, and then divided the most tense part of the band; if the finger could now be straightened completely, the operation was finished; if not, he made one or more incisions above or below the first one. When the fingers became free, he maintained them in the extended position by means of bandages and splints, for a month or six weeks; but as soon as the state of the wound permitted, he commenced movements of flexion and extension.

M. Goyraud operates in a different way: he makes his incision along the side of the band, and in the same direction with it, and then divides the band in various places, or excises a portion of it. This method has many advantages over that of Dupuytren; the patient runs less risk of inflammation extending along the sheaths of the tendons, or palm of the hand; it allows us to commence moving the fingers at an earlier period, and leaves a much smaller cicatrix. When we have restored the finger to its natural position by means of operation, we are not to think that the patient is free from the danger of relapse. Considerable care must be bestowed on the after-treatment; the joints must be frequently moved; discutient lotions, &c. applied, and the patient must be particularly cautioned against using any hard bodies, or employing himself in any occupation by which the palm of the hand may be irritated.—*Prov. Med. and Surg. Journ.* Oct. 1841.

34. *Erectile Tumours.* By M. Berard.—Under the name of erectile tumours surgeons include many accidental productions, as well congenital as acquired, which present important differences among themselves; sometimes the lesion exists in the capillaries of the tissue of the skin; sometimes it occupies the little veins of the subcutaneous and submucous cellular tissue; and sometimes, finally, it results from the simultaneous dilatation of all the arterial branches of a region.

1. The first species of erectile tumour is ordinarily manifested a few days after birth. It appears first under the form of a little spot, like a flea-bite; it acquires by little and little a considerable development; its base widens, whilst its surface is elevated; its colour is vivid red; the cries and the efforts of the infant increase for a moment its size and its tension, as well as the intensity of its colour.

It is said these tumours have pulsations isochronous with the pulses of the heart; but in the greater number observed by M. Berard, these pulsations were altogether absent, and in the rare instances in which they were present, the tumours rested upon arteries from which they derived movement. It is, in fact, in general, a movement of elevation rather than of expansion.

The growth of erectile tumours is ordinarily rapid during the first months of life; they are seen to acquire the volume of a cherry, of a walnut, or even greater. Occasionally they seem to have periods of rest when no growth takes place; then, after many months, sometimes after a year, they recommence their growth: nevertheless, this species of tumour scarcely ever becomes larger than a small egg, without undergoing change in its form and texture. These changes often take place before the malady has attained the dimension of *two* or *three* centimetres.

The following is the order of these changes:—One of the most salient points of the tumour begins to ulcerate; the vessels being no longer protected by the cutaneous pellicle, let escape a quantity of blood, sometimes enough to constitute an hemorrhage. This loss of blood is considered as a grave circumstance; nevertheless, in all the cases I have seen, the hemorrhage has been small, and easy to be stopped.

When the ulceration has once commenced, it extends gradually over the whole surface of the tumour. A suppuration, analogous to that which oozes from a permanent blister, occurs at the different ulcerated points: the pus is furnished by a granular membrane, which replaces the teguments and covers the vessels. These vessels cease to receive blood in great quantity; they are obliterated little by little, so that the tumour sinks down in the middle: in fine, at the end of some days, the ulcer cicatrizes, and the tissue, of new formation, partaking of the properties of innodular membranes, becoming less and less vascular, diminishes in extent and augments in density.

When the ulceration is deep, the subjacent erectile tissue is mostly entirely altered; it is the same when the tumour is not very thick: in the contrary case, the cicatrix rests upon tissue which still possesses the characters of erectile tissue, and is continuous with that which remains superficial.

When a tumour is a little voluminous, it may experience, at different intervals, and on various points of its surface, the same process of ulceration, followed by obliteration of the corresponding vessels. Some tumours finish by entirely disappearing, and the skin which covers the affected region is white, thick, hard, like a cicatrix; in other cases, without undergoing so complete a change in their nature, the tumours cease to grow altogether; the places which have not been altered by ulceration remain red and vascular, but do not grow. At other times the vessels are obliterated slowly, without ulceration of the surface of the tumour: the malady disappears, and leaves no vestige of its site.

Finally, in certain cases, which I believe to be more rare than authors represent, the tumour continuing to grow, ends by throwing out deep roots, and by acquiring large dimensions. Here we have reason to fear the hemorrhages which result from the enormous distension of the coverings of the tumour, and of the ulcerations which are produced on the surface.

All authors agree that this form of erectile tissue is similar to normal erectile tissue, except that it is not surrounded by a fibrous elastic membrane.

It is generally in the head that this kind of tumour is met, the skin of the cranium, the temples, the eyelids more particularly, but it is occasionally to be seen in other regions of the body. There are generally but one of these tumours that affect the body at once; very rarely two or three are seen together, and then about the lower limbs. It is in the thickness of the *dermis* itself that these tumours are developed.

2. Erectile venous tumours show themselves sometimes at the moment of birth, sometimes at a greater or less time afterwards. They habitually take origin in the cellular tissue, whether subcutaneous or submucous. The favourite seat is the head, and chiefly on the lips and cheeks: sometimes they affect the tongue, the gums, the inside of the mouth, &c.

In whatever site, the venous tumours present a blue tint, essentially different from the vivid colour of the capillary tumours: they become filled by the cries and other efforts of the child, and they sink down and fade when they are compressed.

These growths occasionally arrive at a considerable volume: their base may be lengthened and contracted, so that they become pediculated. I have seen one as large as a turkey's-egg, and which hung from the upper lip by a flat and thin pedicle.

Venous tumours are less liable to ulcerate than are capillary tumours: their spontaneous cure is uncommon. The rarity of their ulcerating spontaneously exposes them less to hemorrhage; nevertheless, they are not perfectly exempt from it. I have seen a man, forty years old, who carried one of these tumours on his under lip, and who had frequent discharges of blood from it. This man having died of pneumonia, I examined the interior of the tumour. It could not be distended by a very penetrating injection through the carotid artery: the venous injection succeeded very imperfectly. The mass, when incised, exposed an areolar tissue to view. In scraping the surface of the cut with a scalpel, I squeezed out a sanguinolent fluid, analogous to that obtained by a similar process applied to the spleen. The web which remained presented a crowd of lamellated filaments, the junction of which limited the canal-formed cavities communicating freely with each other.

The venous tumours situated in the thickness of the cheeks and lips, occupy generally the entire thickness of these parts, and extend from the skin to the mucous membrane. Every tissue, whether muscular or adipose, disappears, and is replaced by the erectile tissue. These tumours attain to various sizes; when the first years of life are passed, they commonly remain stationary, and show no other alteration of volume than what arises from the transient influence of exertion. It appears even that the frequent repetition of these efforts does not induce a more rapid development of these tumours. I have seen in a glass-house a man who exercised the laborious calling of a glass-blower: he had on his cheek a venous tumour, which was distended a hundred times a-day, and which at each expiration swelled as large as a hen's-egg, yet the malady was torpid for many years.

3. M. Berard discusses at length the relative value, as therapeutic means, of the cautery, of ligature, excision, the seton, acupuncture, vaccination, destruction of the tissue, injection, potential cauterization, compression, &c. Of these he prefers a form of caustic named the "powder of Vienna" (composed of chalk and potassa fusa). This is gradually moistened in alcohol, and mixed into a soft paste, perfectly homogeneous. This is to be applied carefully to the tumour. If there be an important organ in the neighbourhood, this must be protected by a piece of diachylon.

This paste should be applied with the help of a spatula. The thickness and extent of the plaster applied must be in proportion to the size of the tumour. In general it is sufficient to cover the affected tissue till within a couple of lines of its circumference. Whilst the paste is applied, occasionally a little blood is seen to escape, which runs over the caustic mass, is coagulated imperfectly, and has a tendency to flow to the margin of the tumour, and carry with it a portion of the caustic. In order that the sound parts may not be injured by the contact of this fluid, it is necessary to remove it immediately with dossils of lint. It is seldom that the blood flows so freely as to carry the caustic with it. If this, however, does occur, it is necessary immediately to take away the caustic, of which the action can no longer be usefully directed. The sole inconvenience is the production of an escar too superficial, and the necessity of recurring to new cauterizings.

At the end of five or six minutes the paste may be definitively taken away, by passing lightly the edge of a spatula over the escar produced, and in order to leave no particle of caustic the part is washed with vinegar. It sometimes happens that, however carefully the caustic is removed, bleeding is produced, and even copiously; but a pledget and a little pressure are sufficient always to suppress it.

The action of the caustic is not very painful; a redness immediately after its application appears round the tumour, accompanied with swelling, and disappears at the end of a few hours. At this time the erectile tumour has entirely changed its aspect; it is covered with an escar, which, when exposed to the contact of air, soon becomes black and very hard. It continues soft if kept covered by an unctuous substance, and this is advisable.

When the tumour is not very thick, a single application of the paste will suffice to destroy it; in the contrary case, the base is not comprised in the escar, and it is easy to recognize in the pimply elevations the presence of the erectile tissue. If the layer of the morbid tissue be thin, it may be left to itself; as the cicatrization advances, the fleshy pimples sink by degrees, take a vermilion colour, as in the simple wounds which suppurate, and nitrate of silver is enough to remove them. But if the remains of the tumour appear disposed to persist or to enlarge, a second application of the "Vienna paste" should be made. I prefer waiting till the complete healing of the wound (which occurs in about a fortnight), before I make the second application.

Except the escape of blood already named, I know no ill consequence that results from the use of the Vienna paste. When a definitive cure is obtained, there remains in the place of the erectile tumour a white cicatrix, on a level with the skin.

Dr. Berard relates *eight* cases in which he illustrates his views of the therapeutic means proper to this kind of disease, and in which several inconvenient results are shown to arise from the use of needles, injections, setons, and other means practised in this country.

4. The third kind of erectile tumour arising from the simultaneous dilatation of all the arterial branches of a region, M. Berard reserves for a separate essay. —*Lancet*, from *Gazette Médicale de Paris.*

35. *Extirpation of the Parotid Gland.*—M. Larrey communicated to the Academy of Sciences, Aug. 9, 1841, the case of a girl 19 years of age, in whom the lymphatic ganglions of the neck formed a tumour, which occupied the whole space between the left clavicle and the jaw, extending in front of the ear, into the parotid gland, and into the cheek of the same side. After effecting the resolution of the tumour by the actual cautery, moxas, mercurial frictions, &c. a treatment which continued for two years, M. Larrey then removed the parotid gland, which exhibited all the signs of the cancerous degeneration, and the patient was perfectly cured.—*L'Examinateur Médicale*, 15th Aug. 1841.

OPHTHALMOLOGY.

36. *Green Cataract.*—M. H. Cunier, in a report of the diseases treated at the Ophthalmic Dispensary of Brussels, invites attention to this form of Cataract, which is often confounded with Glaucoma and the unfortunate patients thus abandoned to darkness. Dr. C. says, that he has met with eight cases of this kind. The individuals laboured under green cataract, which had been mistaken for incurable glaucoma. Seven of these patients were operated on and were restored to sight.—*L'Examinateur Médical*, 12th September, 1841.

37. *Galvanism in some Organic Diseases of the Eye.*—In our last No. (p. 237,) we gave an account of this method of treatment, and expressed our distrust of its value; and this opinion appears to be fully confirmed by the following account of the subsequent experiments of MM. Lerche and Kabat, which we extract from our cotemporary the *Brit. and For. Med. Review*, Jan. 1841.

"The two papers before us contain notices of seven more cases of cataract in which it (galvanism) has been tried. The result appears on the whole unsatisfactory. The common effect of the electro-galvanic action is to produce during the operation considerable pain, and subsequently severe and sometimes very obstinate inflammation of all the tissues of the eye. In the course of this the cataract has been in some cases partially absorbed, and the sight in a measure improved: but the attainment of these, the most favourable of its results, cannot be relied on, and in some of the cases the operation manifestly did harm. Dr. Lerche's conclusion, which is of course drawn with some partiality for the plan, is, 'that it is an important remedy in some organic diseases of the eye, but that its application requires great caution, and must be confined to those cases of cataract in which a favourable result is scarcely to be hoped for from the common modes of operation.' "—*Medicinische Zeitung*. September 1 & 8, 1841.

38. *Kreasote in Affections of the Eye.*—Mr. G. T. Black, of Bristol, states that he has employed a lotion of kreasote in inflammation of the conjunctiva, and also an ointment of the same in ophthalmia tarsi, with great advantage. The following is his formula for the lotion: ℞.—Kreasote ♏iij.; Tinct. lavend. comp. ♏xx.; Aq. destil. ℥ss.—M.—*Lancet*, Aug. 7, 1841.

We have employed this lotion and the ointment in a few cases, but without any very striking results. Mr. B. does not point out the particular conditions to which the remedy is suited.